REMARKS

Status Summary

Claims 1-35 are pending in the present application. Claims 1-35 presently stand rejected. In this amendment, no claims are added and no claims are canceled.

Claim Rejections - 35 U.S.C. § 101

Claims 24-35 stand rejected under 35 U.S.C. § 101 as not supported by either a specific and substantial asserted utility or a well established utility. Specifically, the Official Action states that "the original disclosure does not clearly support of what 'product' has been positively disclosed as, nor does the original disclosure clearly support of what 'medium' has been positively disclosed as." (See Page 2 of the Official Action.) This rejection is respectfully traversed.

Claims 24-35 have been amended to recite a processor card that includes one or more processors for executing instructions for detecting SCCP looping. Support for this amendment is found in Figure 2 of the original specification, which shows a processor card **206** containing database service module **236** for performing loop detection, and in the original specification, which states that processor card **206** may "include one or more microprocessors for executing the various telecommunications applications that will be described herein" (Specification, page 13, lines 11-13), and that SCCP loop detector **236** "determines whether SCCP looping is present" (Specification, page 15, lines 5-6).

Under 35 U.S.C. § 101, a patent may be obtained for any new and useful process, machine, manufacture, composition of matter, or any new and useful

improvement thereof. It is respectfully submitted that a processor card with at least one processor that executes instructions for detecting SCCP looping is a machine under 35 U.S.C. § 101. It is also submitted that a processor card with at least one processor for detecting SCCP looping is useful because detecting SCCP looping solves a problem in telecommunications networks of detecting looped messages, which increases network traffic. Accordingly, it is respectfully submitted that claims 24-35 constitutes statutory subject matter under 35 U.S.C. § 101 and the rejection should be withdrawn.

Claim Rejections - 35 U.S.C. § 112

Claims 24-35 stand rejected under 35 U.S.C. § 112, first paragraph, as not supported by specific or substantial asserted utility or a well established utility. The Official Action states that "one skilled in the art clearly would not know how to use the claimed invention. (See Page 2 of the Official Action.) This rejection is respectfully traversed.

As stated above, claims 24-35 have been amended to recite a processor card with at least one microprocessor for executing the steps for detecting SCCP looping. Under 35 U.S.C. § 112, the specification shall contain a written description of the invention and of the manner and process of making and using it as to enable a person of ordinary skill in the art to make and use the same. As set forth above, the description on page 13, lines 11-13 and page 15, lines 5-6 describe a processor card with one or more microprocessors programmed to detect SCCP looping. The remainder of the specification describes exemplary steps for detecting SCCP looping, in particular, in

cases where one or more of the addresses in a message requires translation or mapping in order to detect the looping. Because the specification discloses specific methods for detecting SCCP looping and a hardware and software implementation thereof, it is respectfully submitted that one of ordinary skill in the art would understand from the specification how to program a microprocessor to detect SCCP looping as claimed. Accordingly, it is respectfully submitted that the rejection of claims 24-35 under 35 U.S.C. § 112, first paragraph should be withdrawn.

Claim Rejections - 35 U.S.C. § 102

Claims 1-35 stand rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 6,421,440 to Copley et al. (hereinafter, "Copley".) This rejection is respectfully traversed.

Independent claims 1, 10, 12, 13, 24, 30, 33, and 35 recite methods, a routing node, and processor cards for detecting signaling connection control part (SCCP) looping. In each of these claims, the post-GTT DPC is compared with the OPC in a message to detect the presence of SCCP looping. Each of these claims has been amended to clarify that if SCCP looping is not detected by comparing the OPC to the post-GTT DPC, one of the OPC and the post-GTT DPC is compared to a plurality of point codes used to identify the originating or destination node for the signaling message. Thus, each claim now recites comparing one of the OPC and the DPC in a message to plural point codes that are used to identify the source or destination node. Such a method allows SCCP looping detection when nodes use multiple point codes to identify themselves.

There is absolutely no disclosure in Copley of a method, a routing node, or a processor card where the OPC or the post-GTT DPC are compared to plural point codes identifying the source or destination node to detect the presence of SCCP looping. Copley is directed to a method for detecting SCCP looping, by converting, where possible, SCCP messages from UDT(S) format, a type of message that does not include a hop count value, to XUDT(S) format, a type that includes a hop count value. (See Copley, column 3, line 66 – column 4, line 6.)

Page 4 of the Official Action states that Copley, column 3, lines 19-28 and column 5, lines 23-38, disclose step (c) of claim 1, namely, "(c) comparing the post-GTT DPC with a first point code stored in a message transfer part (MTP) originating point code (DPC) associated with the SCCP message." The cited portion of Copley is shown below:

> Referring to FIG. 2, a simplified exemplary message format **20** for an XUDT message is shown. Message format **20** includes a message transfer part (MTP) routing label **22**, a SCCP **24**, and a transaction capabilities application part (TCAP) **26**. MTP routing label **22** includes a destination point code field **32** and an originating point code field **34**. Destination and originating code fields **32** and **34** respectively identify an STP that is capable of performing global title translation and an STP that sent the query message for the global title translation procedure. SCCP **24** includes a message type field **36**, which may be used to identify whether a message is of the type UDT, XUDT, UDTS, or XUDTS. The following table provides the bit pattern specified by ANSI SS7-SCCP. (Emphasis added.) (Copley, column 3, lines 19-28)

> In the present example, the SCCP procedure continues at network element **80** and results in a new destination for the query message, which may be network element **82**, so that another ten-digit global title translation may be performed. (Copley, column 5, lines 23-28.)

The portion quoted above describes the format of an XUDT message, which includes both DPC and OPC. It can be seen that the portion above says absolutely nothing about comparing the DPC and OPC.

Page 5 of the Official Action states that Copley, column 2, lines 17-35 and column 3, lines 1-18, disclose the remaining steps of claim 1, namely, "(d) in response to detecting a match in step (c), identifying the presence of SCCP looping for the SCCP message; (e) in response to failing to detect a match in step (c), mapping the first point code to at least one second point code (which has been amended to read...second point code of a plurality of point codes used to identify the originating node); (f) comparing the post-GTT DPC to the second point code; and (g) in response to detecting a match in step (f), identifying the presence of SCCP looping for the signaling message." The cited portions of Copley are shown below:

> In another aspect of the invention, a method for preventing message looping in a telecommunications network includes the steps of receiving a query message, and determining a next destination for processing the query message and a route for delivering the query message to the next destination. Next, a determination is made as to whether the route to the next destination is XUDT/S capable, and whether the query message is an XUDT/S message. The query message is converted to an XUDT/S message by changing the message type encoding and by inserting a hop counter therein if the route is XUDT/S capable and the query message is not an XUDT/S message. The query message is converted to a UDT/S message by changing the encoding to a UDT/S message and removing the hop counter therein if the route is not XUDT/S capable and the query message is an XUDT/S message. At the next destination, the hop counter is decremented in the XUDT/S query message. The query message is discarded if the hop counter reached a predetermined value. (Copley, column 2, lines 17-35.)

The portion quoted above describes receiving a query message, determining the route based on the destination, and then converting the message, if possible, to XUDT/S format before sending it on towards its destination.

> According to the teachings of the present invention, network elements 10 and 12 are capable of converting unitdata (UDT) and unitdata service (UDTS) messages to extended unitdata (XUDT) and extended unitdata service (XUDTS) messages, to prevent signalling connection control part (SCCP) message looping. In operation, an SCCP UDT query message is received over link set 16 by network element 10. The query message is processed per ANSI SS7-SCCP procedures, such as global title translation (GTT). A successful SCCP procedure at network element 10 results in an SS7 address of the next network element to receive and process the message. Upon selection of a route to the determined destination, for example network element 12, link set parameters for the chosen route, i.e. link set 14, is examined to determine if the route is XUDT capable. If the route is marked as XUDT capable, the message is converted to an XUDT message. The XUDT message is then sent over link set 14 to network element 12. (Copley, column 3, lines 1-18.)

This portion quoted above describes a similar procedure, but including a GTT step. It can be seen that neither of the portions quoted above teach, suggest, or even mention comparing a DPC to an OPC. Moreover, Copley contains absolutely no teaching or suggestion of, in response to failing to detect a match, finding a second OPC that is associated with the first OPC and performing a second comparison, this time between the DPC or the OPC and plural point codes used to identify the originating or destination node.

In summary, nowhere does Copley teach or suggest steps (d)-(f) of claim 1. Accordingly, it is respectfully submitted that the rejection of claim 1 and its dependent claims should be withdrawn.

Moreover, as stated above, independent claims 1, 10, 12, 13, 24, 33, and 35 have each been amended to clarify that the second comparison (if the first comparison fails to detect SCCP looping) is between the OPC or the DPC and one of a plurality of point codes that the source or destination node uses to identify itself. According to Copley, SCCP looping based on the hop counter in the message, rather than point code comparisons. A hop count is not a point code. A point code is an address in a message, whereas a hop count is a value in a message that is incremented each time the message reaches a new node or hop. Accordingly, for this additional reason, the rejection of the claims as unpatentable over Copley should be withdrawn.

Accordingly, for the reasons stated above, it is respectfully submitted that the rejection of claims 1-35 as being anticipated by Copley should now be withdrawn.

CONCLUSION

In light of the above amendments and remarks, it is respectfully submitted that the present application is now in proper condition for allowance, and an early notice to such effect is earnestly solicited.

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above Remarks, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.
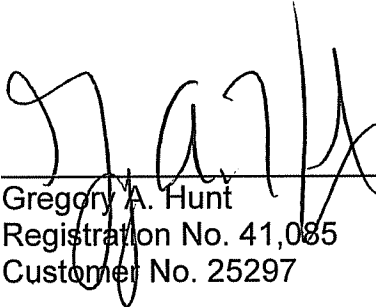
DEPOSIT ACCOUNT

The Commissioner is hereby authorized to charge $460.00, any deficiencies of payment, or credit any overpayment associated with the filing of this correspondence to Deposit Account No. **50-0426**.

Respectfully submitted,

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Date: July 7, 2008   By: _____

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